ABSTRACT OF THE DISCLOSURE

A method for compensating for flare-induced critical dimensions (CD) changes in photolithography. Changes in the flare level results in undesirable CD changes. The method when used in extreme ultraviolet (EUV) lithography essentially eliminates the unwanted CD changes. The method is based on the recognition that the intrinsic level of flare for an EUV camera (the flare level for an isolated sub-resolution opaque dot in a bright field mask) is essentially constant over the image field. The method involves calculating the flare and its variation over the area of a patterned mask that will be imaged and then using mask biasing to largely eliminate the CD variations that the flare and its variations would otherwise cause. This method would be difficult to apply to optical or DUV lithography since the intrinsic flare for those lithographies is not constant over the image field.